

WHAT IS CLAIMED IS:

1. A fulfillment management system, comprising:
a database operable to store product availability information associated with at least one product; and
5 one or more processors collectively operable to:
receive at least one component available-to-promise (ATP) request, each component ATP request corresponding to an ATP request line-item for a desired product;
retrieve from the database at least a portion of the product availability
10 information associated with the desired product for each component ATP request;
determine an ATP response for each component ATP request using the retrieved product availability information;
generate a component quotation for each component ATP request according to the corresponding ATP response; and
15 communicate the component quotation for consolidation with other component quotations.
2. The fulfillment management system of Claim 1, wherein the one or more processors are further collectively operable to:
20 receive at least one component quotation confirmation, each component quotation confirmation corresponding to a particular quotation line-item accepted at a client;
determine a promise response for each component quotation confirmation using at least a portion of the product availability information in the database;
25 generate a component promise for each component quotation confirmation according to the corresponding promise response, the component promise representing a commitment of product availability for the corresponding accepted product; and
communicate the component promise for consolidation with other component
30 promises.

3. The fulfillment management system of Claim 2, wherein the one or more processors are further collectively operable to:

receive a component request cancellation associated with a component ATP request or a component promise;

5 update the product availability information associated with the desired product
in the database; and
 generate a component cancellation confirmation for communication.

4. The fulfillment management system of Claim 2, wherein the one or
10 more processors are further collectively operable to:

receive a component acceptance corresponding to a particular promise line-item accepted at the client;

record the component acceptance in the database; and

generate a component acceptance confirmation for communication.

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5. The fulfillment management system of Claim 2, wherein the one or more processors are further collectively operable to:

identify a planning change that affects a component promise;

generate a planning change notification for communication;

20 receive at least one revised component ATP request; and

process the revised component ATP request to generate one or more revised component quotations.

6. The fulfillment management system of Claim 1, wherein the one or more processors are collectively operable to determine the ATP response for one of the component ATP requests by:

5 searching the retrieved product availability information, in reverse chronological order starting at a requested ship date, for a requested quantity of the desired product;

determining whether the total requested quantity is available between the requested ship date and a lower bound of a date range;

10 searching the retrieved product availability information, in chronological order starting at the requested ship date, for the remaining requested quantity when the total requested quantity is not available between the requested ship date and the lower bound of the date range; and

15 determining whether the total requested quantity is available between the lower bound and an upper bound of the date range.

7. The fulfillment management system of Claim 1, wherein:

the component ATP requests correspond to individual items;

20 the one or more processors are collectively operable to generate component quotations that include information and rules regarding how the component quotations may be mutated; and

the one or more processors are collectively operable to generate component promises that include information and rules regarding how the component promises may be mutated.

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